



ecology and environment, inc.

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International Specialists in the Environment

PRELIMINARY ASSESSMENT

SUBMITTED TO: M.V. Cummings, EPA Region IX Site Assessment Manager

PREPARED BY: Toner Mitchell, Ecology and Environment, Inc. *TM*

THROUGH: Lorene Flaming, Ecology and Environment, Inc. *LM for LF.*

DATE: July 30, 1990

SITE: Oil Operators, Inc.
(listed in CERCLIS as Signal Hill Area Dumpsite)
714 W. Baker Avenue
Long Beach, California
Los Angeles County

TDD#: F9-9005-002

EPA ID#: CAD983566399

PROGRAM ACCOUNT#: FCA1483PAA

FIT REVIEW/CONCURRENCE: *James M. James 8/15/90*

cc: FIT Master File
Don Plain, California Department of Health Services

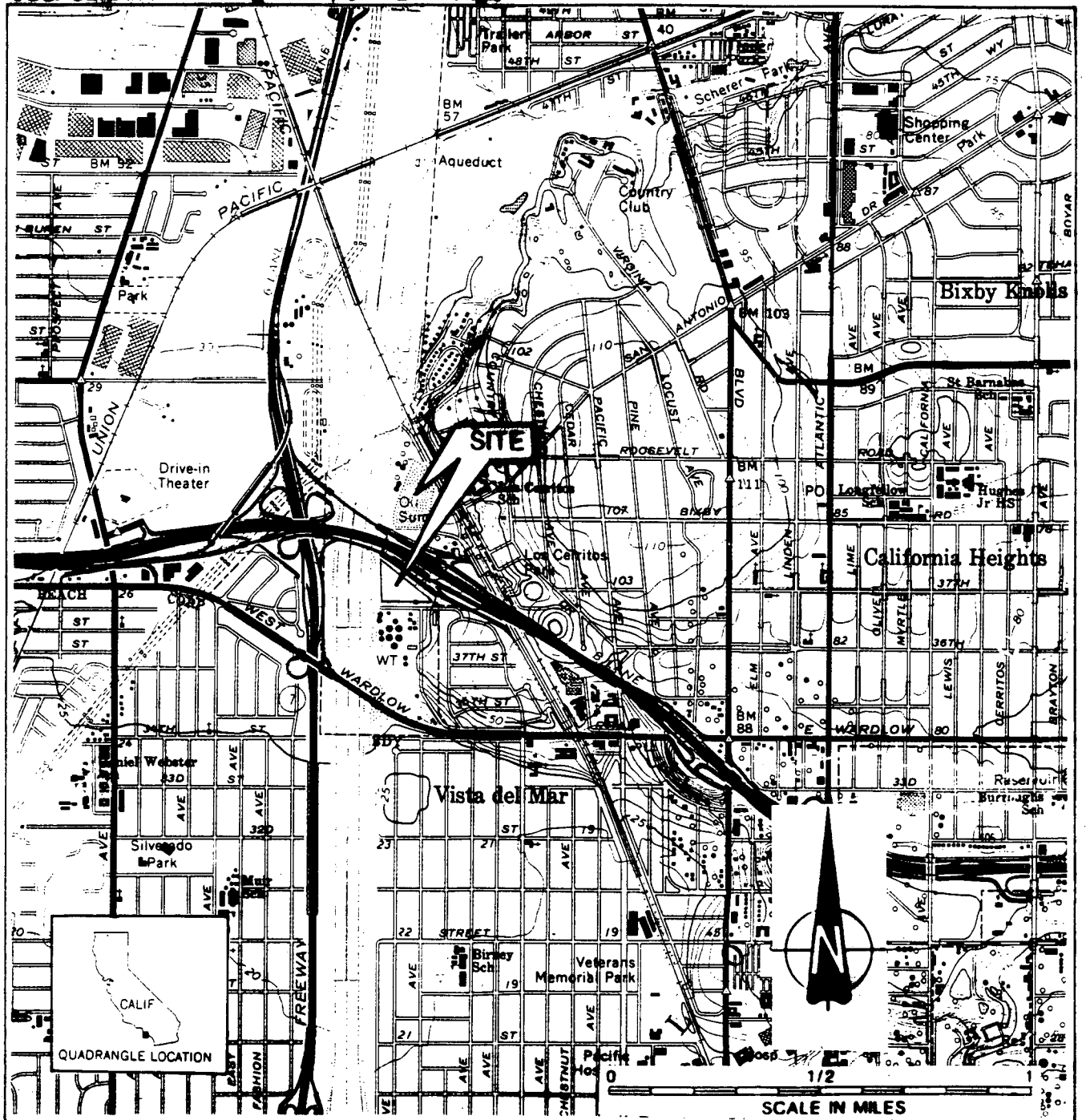
1. SITE DESCRIPTION

1.1 Site Location and Owner/Operator History

The Signal Hill Area Dumpsite, better known as the Oil Operators, Inc. site (Oil Operators), is located in an industrial and residential area at the intersection of the San Diego and Long Beach Freeways in Long Beach, California (Township 4 South, Range 13 West, Section 25; Latitude 33/49/42.0, Longitude 118/11/06.0) (See Figure 1, Site Location Map) (1). The site is directly adjacent to the eastern edge of the Los Angeles River Flood Control Channel and is less than 500 feet west of Los Cerritos Elementary School (1). The Oil Operators site is comprised of two parcels that are separated by Interstate 405 (San Diego Freeway). The south property includes an office and a wastewater treatment plant; the 14-acre north property is an inactive oil sump currently slated for industrial development (2).

tm/oil/pa

SOURCE: Base from Long Beach, CA Quadrangle



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Figure 1: SITE LOCATION MAP
OIL OPERATORS, INC.
714 WEST BAKER ST.
LONG BEACH, CA

Oil Operators was founded in 1926 as a non-profit, cooperative organization that functions solely as a central brinewater treatment facility serving member oil companies in the Signal Hill/Long Beach area. Member companies pay a fee to have their drilling brinewater treated at Oil Operators (2).

1.2 FACILITY PROCESSES/WASTE MANAGEMENT

1.2.1 Historical

In oil extraction operations, oil wells commonly pass through several layers of groundwater before oil is encountered. The water that often accompanies oil as it is removed from the ground is called brine (2).

From 1926 until the mid-1950s, brine from oil drilling was piped to unlined sumps at Oil Operators' north and south properties where water was evaporated from the oil/brine mixture. The remaining oil fraction was either drummed for sale or left in the treatment sumps (2).

In the mid-1950s, Oil Operators built an on-site water treatment plant and terminated oil evaporation at the north and south sumps. This treatment plant covers the majority of the south property (2).

1.2.2 Current

Oil Operators continues to treat brine in its water treatment plant. When brine arrives via pipeline, it is circulated through a series of separation and skimming tanks. Oil skimmed from the wastewater is drummed and sold. The remaining treated water is stored in an open pond at the south property before being sent to the Long Beach city sewage plant for further treatment (2).

Though currently owned by Oil Operators, the north property is slated for industrial development under a joint venture of Oil Operators, Pender Properties, Inc., and Sukut Construction, Inc. (2). Before development can proceed, extensive soil remediation or removal must be conducted at the site (3).

1.3 REGULATORY INVOLVEMENT

The California Regional Water Quality Control Board, South Coast Region (RWQCB), issued Waste Discharge Requirements Order No. 87-54 to Oil Operators in 1987 for the facility's wastewater treatment discharge in association with bioremediation operations (4). Several monitoring wells were installed at the north property in 1986 and are sampled on a quarterly basis (2).

The City of Long Beach also regulates the facility's discharge of treated wastewater to the city sewer system (2). The City also became involved with Oil Operators when the company's attempts at bioremediating the north property allegedly resulted in several children becoming ill at a neighboring school in October 1989. The City issued a Cease and Desist Order and the bioremediation project was terminated (5). This incident will be discussed in further detail in the Apparent Problem section.

The South Coast Air Quality Management Board (SCAQMB) issued an excavation permit to Oil Operators before the company began the remediation project. SCAQMB revoked this permit due to the previously mentioned incident, requiring Oil Operators to investigate alternative remediation strategies before reapplying for an operating permit. To date, Oil Operators' excavation permit has not been reissued (6).

The California Department of Health Services (DHS) performed surface soil and groundwater sampling at the site in October 1989. DHS has prepared a more extensive sample plan to better characterize the potential hazard at the site. The agency, however, has not determined when or if additional sampling will be conducted at the site (7).

Neither Signal Hill Area Dumpsite nor Oil Operators, Inc. is listed in the Resource Conservation and Recovery Act database as of May 8, 1990.

2. APPARENT PROBLEM

Oil Operators began a landfarming bioremediation project at the north property sump in October 1989 in preparation for proposed development of the site (2,6). In this operation, soil was to be excavated and spread throughout the site in an effort to aerate the soil, allowing introduced microbes to break down contaminants (11). During the construction of an earthen berm in the initial stages of bioremediation, neighboring school children and residents became ill, apparently as a result of activities at the north property (5,6,8). Consequently, the Long Beach Department of Health issued a Cease and Desist Order to Oil Operators, halting the project after just three days of operation (5).

In addition to problems with Oil Operators' landfarming at the north property, a local citizen has alleged that illegal disposal of hazardous waste may have occurred at the north property in the past. Citing previous work in antique automobile restoration, this citizen believes that the stained soil he saw at the site had an odor similar to a chrome plating operation (8). As a result of this complaint, the site was entered into CERCLIS in April 1990.

Much of the contamination detected on site is petroleum related and is therefore exempt from CERCLA consideration. Section 101 (14) and 104 (a)(2) of CERCLA excludes petroleum products or any fraction thereof from definition as a hazardous substance, pollutant, or contaminant. However, the presence of several contaminants such as chromium, lead, and selenium in soil and groundwater suggests that wastes other than petroleum-related materials may have been disposed of at the north property (9,10,11).

There is currently no remedial or enforcement action taking place at the north property (6,22). Pender Properties is investigating alternative remediation strategies that would not pose a potential health problem to the surrounding community (3).

The south property is still being used for brine treatment. There is currently a water treatment plant there and part of a former sump is used to contain treated brine prior to its discharge to the Long Beach sewer

system. Wastes associated with the south property are entirely petroleum related and there have been no reports of illegal dumping at this site. A small section of the south property was bioremediated and sold to a neighboring nursery (2).

3. HRS FACTORS

3.1 Waste Type/Quantity

Both the north and south properties at the Oil Operators site were used as waste water treatment sumps from 1926 until the mid 1950s (2). While both sumps were lined with clay, contamination of perched groundwater beneath the site with lead (16 mg/L), chromium (5.5 mg/L), and copper (7.3 mg/L) indicates that the sumps' containment was inadequate (11).

Additional sampling of the north property by DHS in October 1989 indicated that soil was contaminated with barium (440 mg/kg), chromium (135 mg/kg), copper (86 mg/kg), lead (690 mg/kg), arsenic (44 mg/kg) selenium (200 mg/kg), and zinc (290 mg/kg). Volatile organic compounds detected in soils include penanthrene (18,000 µg/kg), 2-methylnaphthalene (45,000 µg/kg), naphthalene (8,700 µg/kg), dibenzofuran (2,400 µg/kg), and fluorene (8,100 µg/kg) (9). Levels of total petroleum hydrocarbons have been detected as high as 95,000 ppm (see Table 3-1)(10).

Although the sumps were used to store petroleum-derived wastewater, which is exempt from CERCLA consideration, concerned citizens indicate that illegal dumping may have taken place at the site and it is possible that an unknown quantity of CERCLA hazardous wastes were deposited in the sumps during the site's 64-year history (8). Apparently, over 500,000 cubic yards of petroleum-contaminated soil exist at the north property, which comprises 14 acres. Petroleum contamination extends to approximately 40 feet bgs and is likely comingled with other contaminants (11).

3.2 Groundwater

Oil Operators is located in the southern portion of the Central Groundwater Basin. Several important aquifer systems underlie the facility. The site is immediately underlain by the Bellflower aquitard which begins at approximately 5 feet below ground surface (bgs) and extends to a depth of approximately 65 feet below ground surface (12). Within aquitard is a perched water zone that is located directly beneath the site at depths as shallow as 8 feet bgs (11). The Gaspar aquifer extends from approximately 65 feet bgs to 105 feet bgs and is separated from the Gage aquifer by a 5-foot thick clay layer. The Gage aquifer may be connected with the Lynwood and Silverado aquifers within 2 miles of the site. The Lynwood aquifer begins at 200 feet bgs and extends to a depth of 600 feet bgs. The Silverado aquifer joins the Lynwood aquifer at 600 feet and continues to over 1,000 feet bgs beneath the site (12). The Gage aquifer begins at approximately 110 feet bgs and appears to be approximately 50 feet thick beneath the site (12).

The Gaspar aquifer is composed of recent alluvial deposits and is mainly sand and gravel. Beneath these deposits lies the Lakewood Formation,

Table 3-1

Summary of Soil and Groundwater Contamination at
Oil Operators, Inc., North Property

Soil

Contaminant	Detection Limit	Results
Barium	10 mg/kg	440 mg/kg
Chromium	3 mg/kg	135 mg/kg
Copper	2 mg/kg	86 mg/kg
Lead	7 mg/kg	690 mg/kg
Arsenic	0.2 mg/kg	44 mg/kg
Selenium	0.2 mg/kg	200 mg/kg
Zinc	0.7 mg/kg	290 mg/kg
Penanthrene	3,000 µg/kg	18,000 µg/kg
2-methylnapthalene	3,000 µg/kg	45,000 µg/kg
Napthalene	3,000 µg/kg	8,700 µg/kg
Dibenzofuran	3,000 µg/kg	2,400 µg/kg
Flourene	3,000 µg/kg	8,100 µg/kg
TPH	---	95,000 µg/kg

Groundwater

Contaminant	MCL	Results
Lead	5 µg/L	16,000 µg/L
Chromium	100 µg/L	5,500 µg/L
Copper	1,300 µg/L	7,300 µg/L
Nickel	---	5,500 µg/L
Zinc	---	18,000 µg/L

The Gaspur aquifer is composed of recent alluvial deposits and is mainly sand and gravel. Beneath these deposits lies the Lakewood Formation, which contains the Gage aquifer. The Gage is also made up mainly of coarse gravel. The Lynwood and Silverado aquifers are of similar composition and are located in what is known as the San Pedro Formation. It is possible that the aquifers in both formations are interconnected in the vicinity of the site as lenses of gravelly clay are interspersed throughout the Bellflower Aquitard and one such lense is located approximately 0.5 miles west of the site (12).

The City of Long Beach Water Department operates 28 municipal wells, five of which are located within 4 miles of the site. The nearest well is located approximately 2 miles northwest of the site. This well contributes to the City's blended system serving over 400,000 Long Beach residents. The City's wells all draw groundwater from more than 1,000 feet bgs in the Silverado aquifer (13).

The neighboring City of Dominguez also operates supply wells located within 4 miles of Oil Operators. The nearest of these wells is approximately 1.5 miles west of the site and draws groundwater from approximately 775 feet bgs. The Dominguez system is blended and serves over 100,000 people in Carson and Torrance. Like Long Beach, the Dominguez Water Corporation augments its water supply by purchasing water from the Metropolitan Water District and blending it with its own groundwater supplies. The general groundwater gradient in the Central Basin near the site is to the west (14).

The average annual net precipitation for Long Beach is approximately 3 inches (15,16).

A groundwater release is likely at the Oil Operators facility. Contaminants such as lead (16 mg/L), chromium (5.5 mg/L), and copper (7.3 mg/L) have been detected in groundwater beneath the site (11). A background sample was not collected. DHS officials stated that the contamination occurred in perched water that is not used for drinking (7). Nevertheless, it is possible that the Central Basin aquifers are connected beneath the site; therefore, the potential exists for contaminants to reach the aquifer that supplies drinking water (12).

3.3 Surface Water

Oil Operators is located adjacent to the Los Angeles River. Currently, earthen berms surround the site (2). In addition, the Los Angeles River is bermed, so it is effectively upgradient of the site (1,2). The Los Angeles River is used only for flood control and not for drinking purposes. It drains directly into San Pedro Bay, approximately 5 miles south of the site (1). Though mainly used as a shipping port, the bay supports a commercial ocean fishery as well, contributing up to 549,000 pounds of fish for human consumption each year (17). The California Least Tern (*Sterna Antillarum*) has been known to live within 4 miles of the facility (18).

The average 2-year, 24-hour rainfall for the Long Beach area is approximately 2 inches (19).

3.4 Air

Although an observed release to air has not been documented, activities at the Oil Operators north property appear to have a high potential for negatively impacting regional air quality. Bioremediation activities at the site apparently caused several children from the neighboring elementary school to become ill (5,6,8). These ill effects could be due to the possible dumping of non-petroleum chemicals at the site, although this has not been verified by FIT or any regulatory agency (8). Air samples collected on site in October 1989 revealed the presence of benzene, ethyl benzene, toluene, and xylenes (see Table 3-4) (20). The population living within a 4-mile radius of the facility is approximately 243,000 (21). There are no known terrestrial sensitive environments within 2 miles of the site (18).

TABLE 3-4

AIR SAMPLING RESULTS AT OIL OPERATORS, INC.

	Results	Detection Limit
Benzene	1.2 ppb	.01 ppb
Ethyl Benzene	0.35 ppb	.01 ppb
Toluene	0.40 ppb	.01 ppb
Xylenes	0.42 ppb	.01 ppb

3.5 On-Site

The Oil Operators facility is located in an industrial and residential area of Long Beach. A horse/bicycle trail lies between the site and the Los Angeles River, adjacent to the north property's western boundary. This side of the site is temporarily unfenced, allowing free access to the north property. During a FIT site reconnaissance visit on May 17, 1990, horse hoofprints were noted on site (2).

The site is otherwise adequately secured from public access. A railroad right-of-way separates the site from a nearby residential and school area to the east. The right-of-way is fenced and the eastern, northern, and southern boundaries of the north property are fenced as well. The entrance to the north property is obstructed by a locked gate (2). There are approximately 15,000 people living or working within a 1-mile radius of Oil Operators (21).

5. REMOVAL CONSIDERATIONS

Since the site is substantially secured from public access and the South Coast Air Quality Management District is making sure that remedial activities do not adversely effect the public, there does not appear to

ill. The actual cause of these illnesses has not been determined, but it is possible that they resulted from activities at the Oil Operators property.

Although many of the hazardous substances at the site may be exempt from CERCLA consideration due to petroleum exclusion criteria, local residents have voiced their concern that illegal dumping may have occurred at the site in the past. Although these claims have not been verified, the following conditions are of concern at the Oil Operators, Inc. site:

- o Documented soil and groundwater contamination;
- o Groundwater within 4 miles of the site serves a large population;
- o High potential for a documented release of volatile organic compounds to the air;
- o Potential for public access to on-site contamination; and
- o High residential population near the site, including an elementary school.

7. EPA RECOMMENDATION

	<u>Initial</u>	<u>Date</u>
No Further Remedial Action Planned	_____	_____
High-Priority SSI	<u>RL</u>	<u>9/11/90</u>
Medium-Priority SSI	_____	_____
Notes:		

REFERENCES

1. U.S. Geological Survey, Topographic map, Long Beach Quadrangle, 1964.
2. Site Reconnaissance Interview and Observations Report, Dick Young and Wes Williams, Oil Operators, Inc., and Toner Mitchell, Ecology and Environment, Inc., Field Investigation Team (E & E FIT), May 17, 1990.
3. Pender, Mark, Pender Properties, and Toner Mitchell, E & E FIT, telephone conversation, May 30, 1990.
4. California Regional Water Quality Control Board, Los Angeles Region, Order No. 87-54, Waste Discharge Requirements for Oil Operators, Inc., March 23, 1987.
5. Smith, Dick, City of Long Beach Health Department, and Toner Mitchell, E & E FIT, telephone conversation, May 9, 1990.
6. Haynes, Michael, California Air Quality Management District, South Coast Region, and Toner Mitchell, E & E FIT, telephone conversation, May 15, 1990.
7. Alonzo, Manny, California Department of Health Services (DHS), and Toner Mitchell, E & E FIT, telephone conversation, May 14, 1990.
8. Deets, John, concerned citizen, and Toner Mitchell, E & E FIT, telephone conversation, May 9, 1990.
9. SCS Analytical Laboratory, Sample Results, Oil Operators, Inc., collected by the California Department of Health Services, October 5, 1989.
10. Jack K. Bryant & Associates, Inc., to Diana M. Bonta, City of Long Beach Department of Health and Human Services, letter re: Environmental Services Related to the Cleanup of Oil Operators North Site, October 2, 1989.
11. Jaykim Engineers, Inc., "Landfarming at Oil Operators North Site, Long Beach, California," report submitted to John Wesnousky of DHS, May 13, 1988.
12. State of California Department of Water Resources, Bulletin #104, "Planned Utilization of Groundwater Basins of the Coastal Plain of Los Angeles County," Appendix A, Groundwater Geology, June 1961.
13. Flohra, Ron, Long Beach Water Department, and Toner Mitchell, E & E FIT, telephone conversation, May 9, 1990.
14. Terry Witthoft, Dominguez Water Corporation, and Kate Dragolovich, E & E FIT, telephone conversation, August 8, 1989.

REFERENCES (Cont.)

15. Comparative Climatic Data for the United States Through 1985, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Environmental Satellite Data and Information Service, National Climatic Data Center, Nashville, TN.
16. Federal Register, Vol. 53, No. 247, Proposed Rules, 52029-52030, December 23, 1988.
17. California Department of Fish and Game, Marine Resource Division, "Catch Block Data for 1987," derived from Annual 1AA Report, August 31, 1988.
18. California Department of Fish and Game, Natural Diversity Database, Long Beach Quadrangle, Expired April 1, 1990.
19. U.S. Department of Commerce, NOAA, National Weather Service, NOAA Atlas II, Precipitation-Frequency Atlas of the Western United States, Volume XI- California, p. 37, Silver Spring, Maryland, 1973.
20. CKY Incorporated Environmental Services, Laboratory Report, Oil Operators North Site, October 6, 1989.
21. California Department of Finance, "1980 Census of Population and Housing Database," Summary Tape File 1A.
22. Skandura, John, California Department of Health Services, and Toner Mitchell, E & E FIT, telephone conversation, May 9, 1990.

Appendix A
CONTACT LOG AND REPORTS

CONTACT LOG

Facility Name: Oil Operators, Inc.
Facility ID: CAD983566399

Name	Affiliation	Phone #	Date	Information
Terry Witthoft	Dominguez Water Supply	213-834-2625	8-8-89	See Contact Report.
John Skandura	DHS	213-590-4868	5-9-90	See Contact Report.
Dick Smith	Long Beach Health	213-427-7421	5-9-90	See Contact Report.
Ron Flohra	Long Beach Water Department	213-426-5951	5-9-90	See Contact Report.
John Deets	(citizen)	213-424-6896	5-9-90	See Contact Report.
Manny Alonzo	DHS	213-590-4904	5-14-90	See Contact Report.
Michael Haynes	South Coast Air Quality District	818-572-6195	5-15-90	See Contact Report.
Dick Young & Wes Williams	Oil Operators, Inc.	213-424-2451	5-17-90	Site Reconnaissance and Observations Report.
Mark Pender	Pender Properties	213-490-0777	5-30-90	See Contact Report.

CONTACT REPORT

AGENCY/AFFILIATION: Dominguez Water Corporation		
DEPARTMENT:		
ADDRESS/CITY: P.O. Box 9351		
COUNTY/STATE/ZIP: Long Beach, CA 90810		
CONTACT(S)	TITLE	PHONE
1. Terry Witthoft	Operations Manager	213-834-2625
2.		
E & E PERSON MAKING CONTACT: Kate Dragolovich		DATE: 8/8/89
SUBJECT: Active Dominguez wells		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD983566399

Dominguez Wells:

- #15 SE corner of Carson & Alameda: 1,049' deep, perforated at 802' - 1,000 (active).
- #16 SE corner of Carson & Alameda: 975' deep, perforated at 773' - 950 (active).
- #19 418 Carson between Main & San Diego Freeway. Abandoned due to a collapsed casing. A new well will be drilled.
- #75 (4S13W29E05S) Main & Lomita: 483' deep, perforated 196' - 214', 262' - 290', and 350 - 410'.
- #77 (4A13W20C01S) 22050 Westward Avenue, west of Alameda up against the San Diego Freeway: 950' deep, perforated at 588' - 920'. Temporarily inactive due to methane gas in the water. The well is being aerated and will be back in service in July.
- #79 229th & Anchor, 1 block west of Avalon: 925' deep, perforated at 480' - 652" (active).

These wells service approximately 100,000 people; 70,000 to 80,000 of which live in Carson and the remainder in Torrance. The drinking water is a blend of Dominguez Water Corporation water and Metropolitan Water District water.

* Contact originally associated with IT Corporation. Wells listed are those within 4 miles of IT. IT is approximately 1 mile west of Oil Operators.

CONTACT REPORT

AGENCY/AFFILIATION: California Department of Health Services		
DEPARTMENT: Toxics Unit		
ADDRESS/CITY: Long Beach		
COUNTY/STATE/ZIP: Los Angeles, California		
CONTACT(S)	TITLE	PHONE
1. John Skandura		213-590-4868
2.		
E & E PERSON MAKING CONTACT: Toner Mitchell		DATE: 5/9/90
SUBJECT: Site Specific Information		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD983566399

DHS has prepared an extensive soil sample plan for the South Coast Air Quality Management District. SCAQMD has not determined when or if sampling will be conducted in conjunction with any enforcement action at the site. To date, only hydrocarbons have been detected at the site. No VOAs, metals, pesticides, or PCBs were detected. Referred me to Manny Alonzo.

- * Mr. Alonzo stated that volatiles and metals have, in fact, been detected in soils and perched groundwater.

CONTACT REPORT

AGENCY/AFFILIATION: City of Long Beach		
DEPARTMENT: Health		
ADDRESS/CITY: Long Beach		
COUNTY/STATE/ZIP: Los Angeles, California		
CONTACT(S)	TITLE	PHONE
1. Dick Smith		213-427-7421
2.		
E & E PERSON MAKING CONTACT: Toner Mitchell		DATE: 5/9/90
SUBJECT: Background Information		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD983566399

When bioremediation at the north property apparently caused several area residents to become ill, the city issued Oil Operators a Cease and Desist Order, terminating the operation. The company needs to be repermited by the South Coast Air Quality Management District before bioremediation can resume. Mr. Smith believes that the consensus among regulatory agencies is that sampling at the site has been too limited in scope.

CONTACT REPORT

AGENCY/AFFILIATION: City of Long Beach		
DEPARTMENT: Water		
ADDRESS/CITY: Long Beach		
COUNTY/STATE/ZIP: Los Angeles, California		
CONTACT(S)	TITLE	PHONE
1. Ron Flohra		213-426-5951
2.		
E & E PERSON MAKING CONTACT: Toner Mitchell		DATE: 5/9/90
SUBJECT: Water Supply Information		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD982566399

The City of Long Beach operates 28 municipal supply wells that, when blended with Colorado River water purchased from the Metropolitan Water District, supply over 400,000 Long Beach residents with drinking water. The only wells that are located within 4 miles of the site are five wells between Cherry and South Streets, approximately 2 to 3 miles northeast of the site. The city's wells all draw from aquifers at least 1,000 feet below ground surface.

CONTACT REPORT

AGENCY/AFFILIATION:		
DEPARTMENT:		
ADDRESS/CITY: Long Beach		
COUNTY/STATE/ZIP: Los Angeles, California		
CONTACT(S)	TITLE	PHONE
1. John Deets		213-424-6896
2.		
E & E PERSON MAKING CONTACT: Toner Mitchell		DATE: 5/6/90
SUBJECT: Citizen Complain		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD983566399

Mr. Deets is a Long Beach resident who lives about 1 mile east of the Oil Operators facility. In 1989 bioremediation operations at the site apparently made several nearby schoolchildren and residents sick. This event made Mr. Deets recall witnessing evidence of illegal dumping at the north property. An experienced antique auto refurbisher, Mr. Deets linked certain odors he smelled on Sunday horserides to activities at a chrome plating facility. He apparently saw colored sludge material on the ground, stating that it appeared to have been dumped the previous night. This was in the late 1960s. Mr. Deets also spoke of a resident who took a grab soil sample at the site. Upon analysis, this oil apparently contained PCBs. He can not verify this. He says that site has only been fenced for three years. He says odors came from the site when bioremediation was conducted.

CONTACT REPORT

AGENCY/AFFILIATION: Department of Health Services		
DEPARTMENT: Toxics		
ADDRESS/CITY: Long Beach		
COUNTY/STATE/ZIP: Los Angeles, California		
CONTACT(S)	TITLE	PHONE
1. Manny Alonzo		213-590-4868
2.		
E & E PERSON MAKING CONTACT: Toner Mitchell		DATE: 5/14/90
SUBJECT: Sampling Results		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD983566399

A revised sample plan has been written by DHS for more detailed soil sampling. Future sampling by DHS is unlikely. Existing data indicates that semi-perched groundwater beneath the site is contaminated with benzene and metals but this aquifer is not used for drinking.

CONTACT REPORT

AGENCY/AFFILIATION: South Coast Air Quality Management District		
DEPARTMENT:		
ADDRESS/CITY: El Monte		
COUNTY/STATE/ZIP: Los Angeles, California		
CONTACT(S)	TITLE	PHONE
1. Michael Haynes		818-572-6195
2.		
E & E PERSON MAKING CONTACT: Toner Mitchell		DATE: 5/15/90
SUBJECT: Air release potential		
SITE NAME: Oil Operators, Inc.		EPA ID#: CAD983566399

Oil Operators received a permit 1150 for the excavation of contaminated soil at the north property in 1989. Once excavation (bioremediation) began in October 1989, several area residents became ill. SCAQMD then revoked Oil Operators' permit. Mr. Haynes believes that there wouldn't have been a problem if the neighboring school wasn't in session when the operation was initiated. Alternative strategies are being investigated but air monitoring will probably be required before a permit 1150 will be reissued.

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Ecology and Environment, Inc.		
Field Investigation Team (FIT)		
160 Spear Street, Suite 1400		
San Francisco, California 94105		
(415) 777-2811		
E & E PERSON(S) CONDUCTING INTERVIEW AND MAKING OBSERVATIONS:		
Toner Mitchell and Lorene Flaming		
FACILITY REPRESENTATIVE(S):	TITLE:	PHONE:
Dick Young	President	213-424-2451
Wes Williams		
SITE NAME: Oil Operators, Inc.		DATE: 5/17/90
CITY/STATE: Long Beach, California		EPA ID#: CAD983566399

The following information was obtained during the interview:

Oil Operators, Inc. was founded in 1926.

Oil Operators treats oilfield wastewater that is produced by various small oil companies in the Signal Hill area. These companies are all members of the Oil Operators "cooperative" (Oil Operators is a nonprofit organization). The north property is slated for joint development by Oil Operators, Sukut Construction (equipment), and Pender Properties (development and remediation funding). Petro Resources operates several oil rigs at the north property.

In oil extraction, drills commonly pass through several layers of groundwater before oil is found. Water often accompanies oil as it is withdrawn from the ground. The term for this water is brine.

From 1926 until the mid-1950s, brine from oil drilling was piped to sumps at Oil Operators' north or south properties where water was evaporated from the oil/brine mixture. The remaining oil fraction was either drummed for sale or left in the treatment sumps.

In the mid-1950s, Oil Operators built an on-site water treatment plant and terminated oil evaporation at the north and south sumps. This treatment plant covers the majority of the south property.

plant. When brine arrives via pipeline, it is circulated through a series of separation and skimming tanks. Oil skimmed from the wastewater is drummed and sold. The remaining treated water is stored in an open pond at the south property before being sent to the Long Beach city sewage plant for further treatment. The city regulated Oil Operator's wastewater discharge, usually requiring the company to wait until off-peak hours to discharge wastewater to the sewer.

The following observations were made during the site reconnaissance visit:

During the tour of the north site, FIT questioned Mr. Young about several claims made by Mr. John Deets, a concerned Long Beach resident responsible for the site being entered into CERCLIS. Specifically, FIT inquired into the validity of Mr. Deets' claims that the site has been unfenced until recently and that midnight dumping occurred at the site. Mr. Young said the site has been fenced since before the 1950s. FIT observed that the western border of the site was unfenced. Mr. Young said this was temporary. Mr. Deets also stated that he saw a truck on site, believing that illegal dumping was taking place. FIT noted that the grade at the site is uneven. Mr. Young said this results in pooling of rainwater in certain places. He added that it is possible that what Mr. Deets thought was a waste disposal truck may actually have been a vacuum truck removing pooled rainwater.

Mr. Deets also reported that he saw oozing chemicals at the site when he rode horses by the western boundary of the site. It seemed unlikely that he would have been able to see on-site wastes from the adjacent riding path. He would have had to ride up a steep 30-foot incline to see the site.

Earthen berms surround the site and appear to inhibit drainage to the adjacent Los Angeles River which is also bermed. Mr. Young stated that it was during the construction of these berms at the beginning of the bioremediation attempt that the neighboring school children became ill.

Hoofprints were noted on site.

Several monitoring wells exist on site. These wells are sampled for RWQCB.

The north site is fenced on its east, south, and north sides. A railroad right-of-way exists between the site's eastern boundary and an elementary school and public park.

The south property is still being used for brine treatment. There is currently a water treatment plant there and part of a former sump is used to contain treated brine prior to its discharge to the Long Beach sewer system. Wastes associated with the south property are entirely petroleum related and there have been no reports of illegal dumping at this site. A small section of the south property was bioremediated and sold to a neighboring nursery.

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Appendix B
PHOTODOCUMENTATION

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/17/90

TIME: 11:20 AM

DIRECTION:

south

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:

Gate at southeast corner of the North Property.



DATE: 5/17/90

TIME 11:18 PM

DIRECTION:

north

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:

North Property after land treatment attempt. Note water ponding due to uneven grading.



tm/oil/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/17/90

TIME: 11:13 AM

DIRECTION:

East

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:



Los Cerritos Elementary School with intervening Railroad Right-of-Way

DATE: 5/17/90

TIME 11:16 PM

DIRECTION:

southeast

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:



Los Cerritos Park

tm/oil/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/17/90

TIME: 11:05 AM

DIRECTION:

Northwest

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:

Horse/Bike riding trail viewed from site



DATE: 5/17/90

TIME 11:06 PM

DIRECTION:

northwest

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:

Hoofprints on site



tm/oil/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/17/90

TIME: 11:30 AM

DIRECTION:

northwest

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:

Oilfield drilling water in sump prior to treatment - South Property.



DATE: 5/17/90

TIME 11:30 AM

DIRECTION:

west

WEATHER: clear

PHOTOGRAPHED BY:

Toner Mitchell

SAMPLE ID#:

DESCRIPTION:

On-site water treatment plant - South Property.



tm/oil/fpls